

DUAL HOMING FOR DWDM NETWORKS IN FIBER RINGS

Abstract of the Disclosure

5 First and second optical fibers (26 eastbound, 26 westbound) carry information modulated on an optical carrier ($\lambda_1, \lambda_2, \dots \lambda_N$). Information modulated on the carrier ($\lambda_1, \lambda_2, \dots \lambda_N$) is to be recovered and transmitted at a first node (30) along the first and second optical fibers (26). The first node (30) includes apparatus for receiving and transmitting the information. The apparatus for receiving and
10 transmitting the information includes a first receiver (either $80-\lambda_1-1, 80-\lambda_2-1, \dots 80-\lambda_N-1$ or $80-\lambda_1-2, 80-\lambda_2-2, \dots 80-\lambda_N-2$) for demodulating the information modulated on the optical carrier ($\lambda_1, \lambda_2, \dots \lambda_N$) and carried on the first optical fiber (either 26 eastbound or 26 westbound), a second receiver (either $80-\lambda_1-1, 80-\lambda_2-1, \dots 80-\lambda_N-1$ or $80-\lambda_1-2, 80-\lambda_2-2, \dots 80-\lambda_N-2$) for demodulating the information modulated on the
15 optical carrier ($\lambda_1, \lambda_2, \dots \lambda_N$) and carried on the second optical fiber (either 26 eastbound or 26 westbound), a transmitter ($78-\lambda_1, 78-\lambda_2, \dots 78-\lambda_N$) for modulating the information on the second optical fiber (either 26 eastbound or 26 westbound), and a splitter (40) for splitting the optical carrier ($\lambda_1, \lambda_2, \dots \lambda_N$) carried on the first optical fiber (either 26 eastbound or 26 westbound). The splitter (40) is coupled to the
20 first optical fiber (either 26 eastbound or 26 westbound) and the first receiver (either $80-\lambda_1-1, 80-\lambda_2-1, \dots 80-\lambda_N-1$ or $80-\lambda_1-2, 80-\lambda_2-2, \dots 80-\lambda_N-2$). A portion of the optical carrier ($\lambda_1, \lambda_2, \dots \lambda_N$) is coupled to the first receiver (either $80-\lambda_1-1, 80-\lambda_2-1, \dots 80-\lambda_N-1$ or $80-\lambda_1-2, 80-\lambda_2-2, \dots 80-\lambda_N-2$) and another portion of the optical carrier ($\lambda_1, \lambda_2, \dots \lambda_N$) continues on the first optical fiber (either 26 eastbound or 26
25 westbound).